

WHAT IS CLAIMED IS:

1. A blend comprising:

2 about 20 wt% to about 60 wt% of an impact copolymer;

3 about 300 to about 4000 ppm by weight of a clarifying agent;

4 and

5 a random copolymer comprising a balance of said blend.

2. The blend as recited in Claim 1 wherein said blend, when

3 formed into a resin and extruded into a about 22 mil thick sheet,

4 has a Haze of less than about 77% and a Energy to Maximum Load /

5 Energy After Maximum Load ratio of at least about 1.6 at about -

29°C.

3. The blend as recited in Claim 1 wherein said blend, when

2 formed into a resin and extruded into a about 22 mil thick sheet,

3 has a Haze of less than about 64% and a Energy to Maximum Load /

4 Energy After Maximum Load ratio of at least about 4 at about -29°C.

4. The blend as recited in Claim 1 wherein said blend
2 comprises about 30 wt% to about 50 wt% of said impact copolymer,
3 about 1700 and 2300 ppm by weight of said clarifying agent, and
4 balance said random copolymer.

5. The blend as recited in Claim 1 wherein said blend
2 comprises about 30 wt% of said impact copolymer, about 300 to about
3 4000 ppm by weight of said clarifying agent, and balance of said
4 random copolymer.

6. The blend as recited in Claim 1 wherein said impact
2 copolymer is nucleator free, has a melt flow between about 0.1 g/10
3 min and about 5 g/min and has a crystalline composition comprising
4 a homopolymer, or copolymer containing less than about 5 wt% of a
5 comonomer, and an amorphous rubber composition comprising about 7
6 to about 22 weight% of said impact copolymer, said amorphous rubber
7 having an ethylene:propylene component ratio between about 30:70 to
8 about 50:50 by weight.

7. The blend as recited in Claim 1 wherein said random
2 copolymer has a melt flow between about 0.1 g/10 min and about 10
3 g/min and comprises a propylene copolymer containing ethylene
4 groups randomly inserted between propylene groups, said ethylene
5 groups comprising from about 0.2 wt% to about 4 wt% of said random
6 copolymer.

8. The blend as recited in Claim 1 wherein said clarifying
2 agent is a dibenzylidene sorbitol containing a substitutant having
3 20 carbons or less selected from the group consisting of:
4 alkyl;
5 alkoxy; and
6 halogen.

9. The blend as recited in Claim 1 wherein said random
2 copolymer is a metallocene catalyzed ethylene propylene copolymer.

10. The blend as recited in Claim 9 wherein said metallocene
2 catalyzed ethylene propylene copolymer and ethylene comprises from
3 about 0.15% to about 4.0% weight percent of said metallocene
4 catalyzed ethylene propylene copolymer.

11. The blend as recited in Claim 1 wherein said impact
2 copolymer is a metallocene catalyzed impact copolymer.

12. A process for forming a resin comprising:

2 providing a blend comprising:

3 about 20 wt% to about 60 wt% of an impact copolymer;

4 about 300 to about 4000 ppm by weight of a clarifying

5 agent; and

6 an ethylene-propylene random copolymer comprising a

7 balance of said blend.

13. The process as recited in Claim 12, further including

2 melting, mixing said blend to form a resin and pumping said blend

3 to form a sheet or parison comprising said resin.

14. The process as recited in Claim 12 wherein said blend

2 comprises said impact copolymer and a clarified random copolymer

3 comprising said random copolymer containing said clarifying agent.

15. The process as recited in Claim 14 wherein said mixing

2 further includes adding said clarifying agent sufficient to provide

3 a concentration of between about 1700 and 2300 ppm by weight.

16. The process as recited in Claim 13 wherein said melting
2 comprises heating said blend to a temperature of between 176°C and
3 about 238°C.

17. The process as recited in Claim 13 wherein said forming
2 said sheet comprises heating said resin to a temperature of between
3 about 176°C and about 238°C and extruding said resin.

18. The process as recited in Claim 12 wherein providing a
2 blend includes providing a blend wherein said random copolymer is
3 a metallocene catalyzed ethylene propylene copolymer.

19. The process as recited in Claim 18 wherein ethylene
2 comprises from about 0.15% to about 4.0% weight percent of said
3 metallocene catalyzed ethylene propylene copolymer.

20. The process as recited in Claim 12 wherein providing a
2 blend includes providing a blend wherein said impact copolymer is
3 a metallocene catalyzed impact copolymer.

21. A method for preparing an article of manufacture
2 comprising:

3 preparing a resin comprising a blend of:
4 about 20 wt% to about 60 wt% of an impact copolymer;
5 about 300 to about 4000 ppm by weight of a clarifying
6 agent; and

7 a random copolymer comprising a balance of said blend;
8 and

9 forming an article comprising said resin.

22. The method as recited in Claim 21 wherein said forming
2 comprising a fabrication process selected from the group consisting
3 of:

4 injection molding;
5 blow molding; and
6 extrusion.

23. The method as recited in Claim 21 wherein said article
2 formed is a lid or a container used in low temperature packaging
3 applications.

24. The method as recited in Claim 21 wherein preparing a
2 resin includes preparing a resin wherein said random copolymer is
3 a metallocene catalyzed ethylene propylene copolymer.

25. The method as recited in Claim 24 wherein ethylene
2 comprises from about 0.15% to about 4.0% weight percent of said
3 metallocene catalyzed ethylene propylene copolymer.

26. The method as recited in Claim 21 wherein preparing a
2 resin includes preparing a resin wherein said impact copolymer is
3 a metallocene catalyzed impact copolymer.

27. An article of manufacture comprising:

2 a resin comprising a blend of:

3 about 20 wt% to about 60 wt% of an impact copolymer;

4 about 300 to about 4000 ppm by weight of a clarifying
5 agent; and

6 a random copolymer comprising a balance of said blend.

28. The article as recited in Claim 27 wherein said article
2 has a Notched Izod of at least about 64 J/m at 23°C.

29. The article as recited in Claim 27 wherein said article
2 has a Notched Izod of at least about 138 J/m at 23°C.

30. The article as recited in Claim 27 wherein said article
2 has a Gardner Mean Failure Energy of at least about 7.9 J at 23°C.